On the Border. Limits and Possibilities of Interdisciplinary Research

van Klink, B.M.J.; Taekema, H.S.

published in
Law and Method. Interdisciplinary Research into Law
2011

On the Border. Limits and Possibilities of Interdisciplinary Research

Sanne Taekema & Bart van Klink

Published in: In B.M.J. van Klink & H.S. Taekema (eds.), *Law and Method. Interdisciplinary Research into Law*, Tübingen: Mohr Siebeck 2011, p. 7-32.

1. Interdisciplinarity: A Container Concept

What is interdisciplinary research? In common parlance the concept of *interdisciplinarity* is often used as a rather broad category encompassing all kinds of research in which two or more disciplines are brought together. From a rhetorical point of view, it may be observed that it has become a popular notion that helps to give the research at hand a sophisticated and contemporary image. At a closer look, it appears that various types of research can go by the name – even research that is actually monodisciplinary. In this chapter, we provide a model to categorize the different ways in which an interdisciplinary research project can be set up, mapping the differences according to the intensity of co-operation between the disciplines involved (section 2). Should you choose to take on the study of a different discipline, there are a number of problems you may encounter. Some of these may be obvious: how to read statistics without proper training, for example. Others may be more hidden: for instance, how to interpret familiar concepts which have a different meaning in another discipline. Such differences may be quite subtle and easily missed. We will first highlight some of the more fundamental problems of interdisciplinary work (section 3); specific problems related to particular disciplines will be addressed in the chapters discussing these disciplines in part II of the book. Subsequently, problems of a more practical kind will be discussed (section 4). We do not intend to solve these problems once and for all (even if we could) but wish you to be aware of them and offer some strategies of dealing with them in a pragmatic way. Finally, we show how a choice between the various types of interdisciplinary research can be made (section 5).

2. A Dynamic Model of Interdisciplinarity

If we consider the ways in which a researcher may engage in interdisciplinary research, it becomes clear that the possibilities are numerous. In order to map the practice of interdisciplinary research in a systematic way, we can construct a dynamic model of interdisciplinarity.[1] We believe a typology of research can be made on a scale, based on the extent of other disciplinary input in a research project. This means that we first need to identify the elements that determine the perspective of a particular discipline in order to assess how far the interdisciplinary work moves beyond the single discipline.

The first, most conspicuous, feature of a discipline is the particular set of *concepts* it uses and the way these are used. Generally, core concepts of disciplines differ; and even if they do use similar concepts, the interpretation they give to them

[1] The following typology owes much to discussions with Wibren van der Burg who proposes a similar typology (see Chapter 8). For an alternative typology, see Siems 2009.

will differ. The second element are the *methods* used by a discipline. A method can be described as a structured and established way of acquiring knowledge. For instance, in order to determine the temperature, meteorologists (as well as people in everyday life) use a thermometer. Although many disciplines use a variety of methods, there are always a few favoured methods that are characteristic of a discipline. Again, even if such methods are broadly shared with other disciplines, the way a discipline uses and develops them is distinctive. For example, textual analysis is a core method for legal scholars and literary scholars alike, but the actual analyses, in practice, are very different. Whereas literary scholars often compete to find the most original interpretation, legal scholars usually aim to respect the original intent of the law drafters as much as possible. Some of these differences derive from other elements that characterize a discipline. The third element is the *object* of the discipline: the aspect of reality or experience that is studied. For some disciplines, the object is the clearest indicator of the boundaries of the discipline; think of astronomy or archaeology. For other disciplines, however, the character or scope of the object is contested, law being among these. Legal scholars differ fundamentally on the issue what exactly they are studying. The fourth element is what we would like to call the *problem awareness* of a discipline and the resulting problem definitions. Different disciplines perceive different problems. This also explains the different approaches to the same basic object; for example, the human body as an object of research is approached differently by biology, medicine or anthropology. A medical scholar may be interested to find the cause of a disease, for which purpose she has to make an internal investigation of the body. An anthropologist, on the other hand, is not interested in physical processes but in reasons why people in a particular group deal with sickness and death the way they do (e.g., why they have certain rituals for caring and burying). In this case, it is more relevant to observe outward behaviour and ask people about their inner motives. The fifth element is the research goal or goals pursued by a discipline. A common distinction is that between descriptive and evaluative research: aiming at a correct description or explanation of a phenomenon or aiming at a normative evaluation. This distinction is often cited as a distinguishing feature between legal science and sociology of law, but it is also relevant to differentiate between other types of research, such as fundamental research in artificial intelligence, aiming at an explanation of computer processes, and applied information science, aiming at evaluation or improvement of software applications. To take law and sociology as an example: both sociologists and lawyers take law as an object of research, but sociologists claim to do no more than describe how the legal system works in reality, while lawyers evaluate the legal system in terms of legality, appropriateness, or coherence.[2] Moreover, disciplines or different approaches within a discipline may also differ with respect to the goal or goals connected to the description or evaluation. For instance, a socio-legal description of court proceedings may aim at understanding the inner motives of the legal actors involved or at

[2] Although this is a common way of describing the difference, not everyone agrees. There are sociologists (e.g., Selznick) who also think it is their task to evaluate (especially the success of law in coping with societal problems, see for instance Selznick 1992) and there are lawyers who think their main task is the description of legal norms (e.g., Kelsen 1992). Some may also argue that the difference between sociologists and lawyers is a difference in object: looking at social facts versus legal norms. We will return to the different views on these topics in the next section.

explaining their overt behaviour. Similarly, evaluation of an existing legal rule may be done for the purpose of improving the rule.[3] We will return to the issues of explanation versus understanding and fundamental and applied research in the next section.

The five characteristics of an academic discipline enumerated here are not the only characteristics that form disciplines. These five are characteristics that are important from the perspective of one's philosophy of science; they are characteristics that become apparent when you ask yourself how the concept of a discipline is related to the concept of scientific research. In addition, a common way of understanding a discipline is from the perspective of the sociology of science. Sociologically, disciplines are characterised by the interactions of the groups of people engaged in the discipline, e.g. by the way newcomers are educated and socialised into the norms of the group, or by the hierarchy within research organisations such as university departments (which are often organised along disciplinary lines) and the pressures that arise from such organisational hierarchies.[4] In this chapter we will put the emphasis on the philosophical characterisation of disciplines – in terms of the concepts used, the applied methods, the goals pursued and so on (as opposed to the discipline's social organisation) – because those characteristics are closely related to the theoretical problems of interdisciplinary research.

Using the five determining elements explained above, we can describe different types of interdisciplinary legal research as moving from a monodisciplinary towards a fully integrated interdisciplinary perspective. The most important issues arising in the practice of interdisciplinary research relate to the problem definition (Is there a collaboration between disciplines on the problem definition?) and to the concepts and methods of the different disciplines (How is the research itself conducted?). Research combining different disciplines is often referred to as multidisciplinary research. In the following, the first three types can be grouped together under the heading of multidisciplinary research, by which we mean research combining disciplines in some way, without aiming at integration. We cannot avoid using the term interdisciplinarity in two ways: broadly, to refer to any type of research that involves another discipline in some way, and narrowly, to refer to research that achieves genuine interaction between the combined disciplines. Our model is a model of interdisciplinarity in a broad sense, types 4 and 5 in the model are interdisciplinary in a narrow sense.

TYPE 1: HEURISTIC

The first type of legal research that moves beyond the discipline of law is research that uses other disciplines *heuristically*. In such research the legal discipline provides the problem definition, but the researcher looks for useful material or ideas in another discipline. Once relevant material is found, the researcher incorporates that material in a legal argument. The other discipline is used only as a source of argument or inspiration. An example of this type is the way great books are often used in law and

[3] For a typology of research goals, see IJzermans & Van Schaaijk 2007, p. 19-20.
[4] Most of the authors discussing interdisciplinarity use both philosophical and sociological criteria to characterise disciplines, see e.g. Balkin (1996, 954-957) and Vick (2004, 166-170).

literature research by lawyers.[5] A lawyer might use *Bleak House* by Charles Dickens to argue that legal procedures have an alienating effect on ordinary people. In itself, the claim distilled from the novel is not a valid argument in legal research: such a claim would still need to be justified within the discipline of law, on the basis of recognizable legal concepts, to be recognized as a legal argument. For the heuristic type the perspective of the research as a whole remains within the legal framework.

TYPE 2: AUXILIARY

The second type of legal research uses other disciplines as *auxiliary* disciplines. The legal researcher defines a problem, which he cannot solve with legal methods only, so that there is a need for input from another discipline. Often there will be a reason for that problem, external to the legal framework, which is perceived as demanding a legal response. In this type of research, material derived from the other discipline serves as a necessary contribution to the legal arguments. The validity of the contributing argument is not determined in terms of the legal discipline only: it needs to be a valid argument within the auxiliary discipline itself. This type is exemplified by research that uses material from an empirical science. For instance, research in environmental law may use biological research to argue for the protection of ecosystems instead of the protection of separate species in legislation. In order to make valid use of that argument within law, the interdependence of species within ecosystems needs to be an accepted view within the field of biology. However, the conclusions of such research are still legal conclusions. They will concern the regulation of ecosystem protection, and they will not include independent claims on the biological issue of ecosystems. The research from the auxiliary discipline is only one element in a larger legal framework.

TYPE 3: COMPARATIVE

The third type of research is comparative, treating two disciplines as equally important perspectives. In this form of multidisciplinary research, each of the disciplines provides a definition of the central problem. There is no dominant perspective, and the core of such research is a comparative study of the two disciplines, in which the confrontation with the other discipline yields new insights for both. This type can be best understood by using the parallel of comparative law. According to radical theorists of comparative law, such as that of Pierre Legrand, comparing entails immersing oneself in the cultures of both legal systems (Legrand 2003). The perspective of a whole legal culture, or in our case, a whole discipline, needs to be included in order to make an even comparison between two disciplines possible. In this type of research, the whole research process is doubled: from problem definition to conclusion, the two disciplines work within their own terms. Such multidisciplinary research is an attractive model if a research group with participants from different disciplines can be formed: each researcher brings in a complete disciplinary framework and has a primary interest in justifying the research project in his own terms.

[5] This is not true of all law and literature research; most researchers are much more ambitious. Our point here is that in practice, if you look closely at the uses made of canonical books, it appears that many legal researchers do not achieve more than a heuristic use of literature.

TYPE 4: PERSPECTIVIST

Both the fourth and fifth type, perspectivist and integrated *interdisciplinary*[6] research, then move from the side-by-side comparison towards integration of perspectives. Primarily, this means that interdisciplinary research starts with a joint problem definition and ends with a conclusion that is justified for both disciplines. However, to what extent the whole research process can be integrated is debatable. Of the theorists who think interdisciplinary research is possible, not everyone has the same view of the extent to which interdisciplinarity can be achieved.

TYPE 4A: PERSPECTIVIST

First, we may distinguish interdisciplinary research as *perspectivist*.[7] Such research switches between two disciplines, using the concepts and methods of each. The conclusions will also be perspectivist: there is not a coherent single answer, but a necessary co-existence of two disciplines. Neither discipline can provide the whole answer, nor can the disciplines give up their own framework. An example of perspectivist research is the research into violence by Kees Schuyt (Schuyt 2003, p. 87-89). Schuyt argues that violence has been studied extensively from a monodisciplinary point of view, but cannot be completely understood either from a psychological, a sociological or an anthropological perspective. All three disciplines, and more, are necessary for a complete understanding. Schuyt proposes a theoretical framework in which each discipline has its place: ranging from the explanation by personal factors to intercultural factors. A switch in perspective seems necessary to move from one layer in the framework to the next.

TYPE 5: INTEGRATED

Secondly, interdisciplinary research can be seen as *integrated interdisciplinary research*. In this case, the research process itself contains elements from both disciplines and the researcher welds together the concepts and methods from each or applies a more general methodological approach to both. Application of the general methods of hermeneutics to both law and philosophy might serve as an example of the latter. An example of the integration of elements from two disciplines may be found in James Boyd White's research in law and literature. He brings together concepts and methods from the legal and the literary perspective to create a new approach to both legal and literary texts.

Although integrated interdisciplinary research is the most extensive form of combining disciplines in research, we may question whether this type of research remains *inter*disciplinary.[8] This is one of the main reasons why the model is a dynamic model: the practice of research moves on and the relationships between disciplines change continually. If we look at historical developments of scientific disciplines, it becomes apparent that these are not stable. At times, a segment of an existing discipline may branch off to form a new one as, for example, psychology separated from philosophy at the end of the nineteenth century. The result of integrated interdisciplinary research may also be the birth of a new discipline. For

[6] Here, we use the term *interdisciplinary* in a narrow sense .
[7] The idea of perspectivism is explained by Van der Burg (2009, p. 2).
[8] Some theorists, like J.M. Balkin, deny that integrated interdisciplinary research is possible. Balkin (1996) sees the dynamic of disciplines as a move from a supporting relationship to a change of the discipline or possibly the formation of a new discipline.

instance, we may argue that history of law and sociology of law have developed concepts and methods that are their own and can therefore be regarded as new specialized disciplines. Such a development not only takes time, but also requires a favourable institutional setting: there needs to be a substantial group of people working in the field, support from academic organizations, and so on. For many other fields of interdisciplinary research, the question at this point in time is whether the conditions are favourable for the development towards a new discipline. In some instances, it seems that combining law with another discipline does not move towards integration, but slides into a subordination of law to the other discipline.[9] For instance, arguably, certain branches of law and economics research merely use law as input for economic research and deliver conclusions that remain alien to the legal field; for instance by requiring that the legal system should be more efficient. Here, the result of the dynamic of interdisciplinary research may be a position for law as a supporting discipline.

3. Limits and Possibilities of Interdisciplinary Research: Matters of Principle

In the description of the fourth and fifth type of interdisciplinary research in a narrow sense, we have already indicated that the extent to which interdisciplinary research is deemed possible depends upon one's view of disciplinarity and one's characterization of the closed or open nature of law as a discipline. In this section, we discuss some of the major theoretical issues that arise in the context of the different types of interdisciplinary research. For these issues no easy solutions are available. Since they touch on fundamental convictions about the nature and purpose of science, different scholars will inevitably have different views on these matters. We focus on five controversial issues:

A. How to distinguish between true and false statements?
B. Does science have to aim at explaining or at understanding phenomena?
C. Can facts and values be separated?
D. Is it possible to transfer concepts from one discipline to another?
E. Is science a quest for knowledge for its own sake or must it be socially relevant?

After having presented these issues, we will give some practical guidelines how to deal with them. We do not intend (or hope) to solve these matters once and for all.

A. TRUTH

Many of the discussions about the possibility of interdisciplinary research stem from the divergence of views on what academic disciplines are. The narrower a discipline is defined, the more impenetrable the boundaries between disciplines become. Moreover, a particular conception of a scientific discipline is tied to an idea of what science is about, what true knowledge is, in short, to a philosophy of science. In different disciplines different views prevail. Consequently, while performing multi- or interdisciplinary research, you may encounter the problem that you have to 'prove' your claims according to different, possibly incompatible, notions of truth. In other

[9] A phenomenon that resembles what Balkin (1996, 960-961) refers to as colonization.

words, how can you convince scholars from other disciplines that what you are saying is true?

In the philosophy of science, the notion of truth is one of the perennial problems. We easily say that the common goal of all scientific research is to add to the body of knowledge. But what is knowledge? How do you know whether a scientific statement of fact or a theory is true? There is an enormous range of theories about truth, from a Platonic world of true ideas to a relativistic notion of truth as a cultural construct. However, we can make a rough distinction in modern theories of truth between correspondence theories and coherence theories.[10]

Correspondence theories of truth reflect our daily, uninformed notion of truth as corresponding to reality. A statement is true if it correctly reflects the facts in the world.[11] The truth of a scientific theory is then determined by checking whether it fits the facts. Coherence theories of truth start at the other end: a statement is true if it does not contradict and is substantially in accordance with the widest possible range of other statements. Coherence theories do not pronounce a direct verdict on the reality of the world 'out there' but use both factual and theoretical *beliefs* as the basic input.[12] The reason to adhere to a coherence theory is that it has proven immensely difficult to determine what reality is. A correspondence theory needs to define reality, but our only access to reality is through our own observations and calculations. In a sense, you can never know for sure what is real. On the other hand, it seems strange to let go of all reference to the real world. Intuitively, there is an immense difference between the statement of fact that a person is dead, when you can observe that the body of that person is cold and no longer breathing, or the statement of a legal theory of criminal intent (mens rea), the idea that in order to be guilty of a crime someone must at some time have possessed the mental element of intention to commit the crime. The first statement seems verifiable, while the second cannot really be proven. There are different solutions for acknowledging such differences. One is by regarding both facts and theories as provisionally true: we may assume that a statement is true as long as it is not proven to be false.[13] Another solution is to combine elements of coherence and correspondence theories in a pragmatic way: without actually claiming that factual beliefs correspond to a given reality, one can treat the coherence of those beliefs with each other and with other beliefs as a sign that there is good reason to believe in such a reality.[14]

Whether you need to take a thoroughly argued position on issues of truth very much depends on its relevance to your research; it is more important when you conduct experiments than when you devise a theory on the principles of legality. You should, however, be careful not to claim too easily that your conclusions are

[10] For accessible introductions, see the Stanford Encyclopedia of Philosophy (plato.stanford.edu).

[11] This view is usually attributed to Russell and Moore. Russell simply defined truth as follows "Thus a belief is true when there is a corresponding fact, and is false when there is no corresponding fact" (1980, 75).

[12] An influential coherence theory in practical philosophy is the theory of reflective equilibrium, first developed by John Rawls (see Daniels 1980).

[13] This is the basis of Popper's theory of science, which still informs many of the models of science used today, although Popper's theory is not a theory of truth strictly speaking. Popper's so-called falsificationism holds that a scientist should devise hypotheses in such a way that they can be falsified, i.e. proven not to be true. As long as you do not succeed in disproving the hypothesis by observation or experiment, it can be regarded as true.

[14] E.g. the theory of Donald Davidson (1990).

supported by facts. The problem of truth will often be concealed in problems of how to gather information and how to draw conclusions from that information, in short in methodological problems. How to deal with these, practically, is the subject of section 4. We continue here with another basic distinction underlying methodological choices.

B. EXPLANATION vs. UNDERSTANDING

The distinction between explanation and understanding is usually referred to in German as the distinction between *Erklären* (explanation) and *Verstehen* (understanding). It was first used to indicate the difference between natural sciences (*Naturwissenschaften*) and humanities (*Geisteswissenschaften*); currently, it is commonly associated with the difference between positivism and hermeneutics as scientific approaches. The latter distinction largely parallels a distinction between research into causes of events and research into reasons for conduct. Natural sciences are concerned with the explanation of certain phenomena while humanities try to make sense of human behaviour and thought. In physics, laws of mechanics were formulated to explain movement of objects, while in history reasons were formulated to understand the meaning of human acts such as wars and revolutions.

The above distinction is especially relevant for understanding debates in social science, where some scientists declare that the goal of social science should be to explain observable behaviour, while others declare that its goal should be to understand behaviour and thought, more broadly. The distinction is also the basis for a choice of research methods: for instance, psychological experiments are done to find the causes of human behaviour, while anthropological participatory observation is done to understand the meaning of social practices. Significantly, therefore, if you are combining disciplines, you may find that they not only have different views on the central goal of scientific research but also on the methods to be used to attain this goal. Which method should you use?

The choice of methods partly correlates with a view of the proper approach of social phenomena.[15] In the positivistic approach, scientists should only deal with observable behaviour and exclude from their research the (subjective) meaning people attribute to their own and others' behaviour. In the hermeneutic approach, scientists ought to incorporate the subjective views people have as an integral part of the phenomenon that needs to be understood. For positivistic (or behaviouristic) researchers, trying to give meaning to a social phenomenon amounts to bad science: you can only give your own interpretation of the personal experiences of people. Studying observable behaviour is seen as more objective; it is research that can be replicated and checked. In hermeneutics, researchers are fully aware of the subjective component in their research, but they see that as an inevitable component of the enterprise of research that can be minimised (but not overcome) by explication and argumentation. They see behaviouristic research as shallow and incomplete: how can you claim to know anything about people without addressing their self-understanding? Hermeneutics was first developed as an approach for text-based research, such as philosophy, theology and literature, for which it is still an influential approach.[16] Subsequently, hermeneutic methods were designed for studying and

[15] Compare Chapter 3, Section 3 on research paradigms.
[16] In philosophy, the major proponent of hermeneutics is Gadamer (1994).

understanding human behaviour and its significance, such as the idea of 'thick description' in the interpretive anthropology of Clifford Geertz (1973). In order to understand why a person acted the way he did, you have to imagine yourself in his or her position.

C. FACT/VALUE SEPARATION

Another distinction that may be used to differentiate between different types of scientific research is that between fact and value. According to some scholars, a distinction can be drawn between empirical sciences that are concerned with facts on the one hand and normative disciplines that deal with values on the other hand. Empirical sciences, among which the natural sciences, observe how things are; whereas, normative sciences such as ethics and legal scholarship, are concerned with how things should be. Disciplines belonging to the humanities can be placed on either side of the spectrum: for example, history and linguistics can be considered as empirical sciences because they describe factual events and language rules respectively; theology, on the other hand, is predominantly a normative science since it prescribes how people ought to behave according to rules and principles extracted from the Bible (or other holy texts). The same applies to the social sciences, dependent on whether the emphasis is laid on factual description (as in psychological research) or evaluation (as in gender studies). It is important for legal scholars engaged in multi- or interdisciplinary research to be aware of this distinction, as well as the debate it caused because, among other things, it is not obvious that normative claims can be drawn from empirical data. For example, it does not necessarily follow from the fact that a certain legal procedure is not efficient that the procedure has to be changed; there can be other reasons to keep it as it is, reasons of fairness for example.

In one of the first academic debates on the limits and possibilities of interdisciplinary research into law,[17] Hans Kelsen accuses Eugen Ehrlich of fusing empirical and normative statements about the law. In his 'pure' theory of law, Kelsen tries to construe a solid scientific foundation for the science of law in order to secure its position among other sciences, in particular natural science (which continues to be the generally accepted prototype for 'true' science[18]). In that vein the question to be answered is what is typical or unique about the way the science of law understands its object and how it differs from other ways of understanding. Kelsen argues that the phenomenon of law can be studied from two different perspectives: either how it should be (*Sollen*) or how it is (*Sein*). These two perspectives correspond with two different disciplines from which law can be studied: respectively, a *normative* science of law that determines deductively which rules are valid, and an *explanatory* sociology of law that establish inductively a certain regularity for which it tries to find a causal explanation. Thus, in Kelsen's view, the science of law is a normative and deductive science of value, like ethics and logics, whereas the sociology of law, like other branches of sociology, is a science of reality, and conforms more generally to the methodological practices of the natural sciences. It is equally possible and legitimate to study law from both perspectives, but not at the same time.

[17] See Ehrlich & Kelsen (2003), discussed by Van Klink (2008).

[18] Newspapers that publish scientific new on a regular basis, tend to focus on the supposedly harder sciences, such as chemistry, biology and archeology, at the cost of the humanities.

This strict fact-value separation is rejected by scholars adhering to other, non-positivist scientific approaches, in particular hermeneutics and pragmatism. A forceful pragmatist defense of the inseparability of facts and values is provided by Hilary Putnam. According to him, knowledge of facts presumes knowledge of values and, vice versa, knowledge of values presumes knowledge of facts (Putnam 1995, 14). There is no neat division between the factual characterization of behaviour ─ 'what you just did was rude'─ and evaluation of that behaviour ─ 'being rude is bad' (Putnam 2002, 36). This view derives from the basic pragmatist presumption that we find ourselves in the middle of our own experience, in the middle of a world in which fact and value, natural and social factors, humans and other beings are not distinct nor neatly categorized (Dewey 1989, 352). Although we can in principle distinguish factual judgments from evaluative judgments, many of those judgments are mixed and there is not a clear separating line between the two categories. In his hermeneutic philosophy of law, Ronald Dworkin also rejects a strict fact/value distinction. According to him, statements about what the law is have both a factual and an evaluative dimension because they have to fit the existing system of law and present it in the most attractive way at the same time (Dworkin 1986, 230-231).

D. TRANSLATABILITY OF CONCEPTS

Every discipline has its own specific vocabulary to describe, explain and/or evaluate the phenomena that it is investigating. Different disciplines use different concepts and it may be very difficult, if not impossible, to transfer concepts from one discipline to another. Concepts that are current in one discipline do not always make sense in another discipline. For instance, it would be very odd for legal scholars to analyze the law in terms of its linguistic categories, as linguists would do, or to describe the legislative process as a 'ritual', as anthropologists might do. Conversely, medical scholars have no use for legal notions such as 'ownership' or 'property right', when analyzing human bodies. If it is possible to transfer concepts, the concepts involved may acquire a new meaning in the target domain that differs from the meaning they originally had. Even when no explicit transfer has taken place, different disciplines may understand the same (or similar) concepts in very different ways. In linguistics, this is called the problem of *false friends*: concepts may look similar, but in fact they mean something else. In English, for example, 'gift' means 'present', whereas in German it means 'poison' and in Dutch it can be both. Likewise, legal scholars and sociologists may have very different understandings of validity: a legal norm is called 'valid' in the traditional juridical sense, when it is created in a lawful way and in accordance with higher legal norms. For sociologists, however, this is usually not enough: a legal norm must be applied and obeyed to in society in order to be valid in the sociological sense; otherwise it is just a rule on paper.[19] Therefore, every scholar who is involved in multi- or interdisciplinary research has to be very careful when transferring concepts.

Roughly speaking, there are two ways of looking at the translatability issue, either from a realist or from a nominalist point of view. In a realist perception, concepts refer to objects or entities that exist in real life.[20] Words and things are essentially connected and, therefore, concepts are not easily interchangeable or

[19] See the Ehrlich-Kelsen debate mentioned above.
[20] For a contemporary contribution to the realism debate, see Douven & Horsten (1996).

transferable from one domain to another. Different words denote different things and if, by accident, the same concept is used in different domains we must check carefully whether it is really the same thing that is being referred to. In a nominalist view, on the contrary, concepts are seen as mere constructions, that is conventional and convenient ways of expression (see, e.g., De Saussure 1972). Since there is no essential connection between words and things, we may use different words for the same thing or the same word for different things. Although a realist view does not completely rule out the possibility of exchanging concepts between disciplines, it does impose a strict limitation: concepts can only be transferred if we can be sure that in reality it is the same thing that we are talking about. Nominalism, which certainly in the humanities is the dominant view, seems to allow for a more liberal border politics between disciplines. However, it must also recognize some limits to the exchange of concepts. In particular, basic (linguistic and other) conventions have to be respected in order to avoid conceptual confusion. When a discipline only focuses on outward behaviour (like behaviourism in the social sciences) it begs the question of invoking notions which refer to mental states, such as consciousness, motives and intentions.

E. FUNDAMENTAL vs. APPLIED RESEARCH

Finally, controversy may arise around the question whether scientific research should be fundamental or applied. Fundamental research is concerned with the quest for knowledge for its own sake, without having to worry too much about its practical relevance. In applied research, knowledge is acquired and used for the benefit of society. Some disciplines carry out either fundamental research (such as mathematics, archeology and history) or applied research (disciplines that focus on a specific theme related to policy issues, such as public administration, business administration or environmental studies), while others show a mixture of both (such as medicine, biology and ethics). The science of law belongs to the latter category, but the practical and fundamental approaches do not always live peacefully together. Traditionally, legal scholars consider it to be one of their main tasks to inform legal practitioners about the content of the law and to comment on new drafts and court decisions. However, some legal scholars have recently claimed[21] that this practical orientation has hindered the study of law in becoming a 'real' science. As a defense, it has been argued that there is no point in carrying out legal research without any apparent practical relevance.

In connection with this issue the question has been raised whether legal research should engage in the critical activity of challenging the powers that be and supporting the less powerful – such as women, black, indigenous or handicapped people, refugees and so on – in their fight for political and legal recognition. In the Marxist tradition, a distinction is drawn between traditional and critical theory: whereas traditional theory sustains the existing power structure in society (that is, the status quo), critical theory is designed "to liberate human beings from the

[21] In the Netherlands, a Commission chaired by Jan Smits published a report entitled *Towards Key Performance Indicators for Scientific Legal Research* (*Naar prestatie-indicatoren voor rechtswetenschappelijk onderzoek*), VSNU 2007, available at: http://english.vsnu.nl/web/show/id=98846/framenoid=39657/langid=43.

circumstances that enslave them" (Horkheimer 1982, 244).[22] In gender studies, court decisions and statutes are analyzed critically in order to reveal and undermine the gender bias of the law as it is which supposedly favours men at the cost of women and other people who do not fit the dominant 'white male standard' (see, e.g., Butler 1999). According to the so-called traditionalists, critical theory is nothing but political activism under the pretext of science.

The academic debate on the aims of legal research (and academic research in general) is highly influenced by the way academic research is funded by national governments nowadays. Due to the fact that faculties of law have to increasingly rely on "contract" research, legal research is becoming more practice-oriented and applied. In contract research, the contractor or 'client' (for instance, a ministry or a municipality) hires legal scholars to answer some questions that have arisen in legal or political practice. Thus, the research agenda – including the research questions to be addressed and sometimes even the possible answers – is to a great extent determined by people from outside the academic world. Notably, some legal scholars welcome contract research, because it increases the practical relevance of legal research. Moreover, they generally reject a strict separation between fundamental and applied research. In the ideal case, both types of research reinforce each other: applied research cannot be carried without a solid theoretical foundation, while the theoretical presuppositions underlying fundamental research are tested by applying them to practical issues. Other scholars, however, consider this development to be a serious threat for the independence and academic quality of scientific research (see also Chapter 2, Section 2).

When doing multi- or interdisciplinary research you can easily encounter one or more of these fundamental issues. In discussions on the reliability of evidence in penal cases, for instance, scholars from different disciplinary backgrounds appeal to different notions of truth: psychologists tend to demand empirical evidence for the reliability of testimonies, whereas most legal scholars and practicing lawyers are satisfied with probability based on common sense. People who have experience in working in research groups composed of people from various disciplines, know how difficult it can be to reach a shared understanding of the basic concepts of their research programme (if it succeeds at all). Moreover, social scholars, trained in doing empirical research can experience difficulties in engaging themselves in discussions on normative matters. By training, they care more about facts than about values. If you try to combine insights from different sources in your research, you will discover that they are not always compatible with each other because – among other things – they may be based on different, factual or normative, presumptions. For example, when you try to import economic notions into your legal research, the question arises whether they are relevant for understanding and evaluating the law. Does law have to provide for the most efficient solution? And how does the economic value of efficiency relate to legal principles such as equality and legal security? Another source of incompatibility may be that different disciplines highlight different aspects of the same phenomenon. Traditional legal research focuses on the content of legal norms and the systemic interconnection between legal norms, whereas the sociology of law deals with the way they affect social life.

[22] See also Chapter 3, Section 3 on the research paradigm of critical realism.

What is the best way of dealing with these issues? Multi- and interdisciplinary research will always raise fundamental questions on the nature of scientific research. This does not mean, however, that every individual researcher has to answer these questions. The need to confront them depends on the particular project in which you engage. However, there are some general guidelines. First of all it is important that you are as clear and explicit as possible on the choices you have made. For instance, if you want to assess legal evidence, you should clarify on the basis of which standards you establish the truth of certain data (such as witness testimonies). Moreover, you should explain why these standards, in your opinion, are better suited for assessing legal data than other standards, which may be derived from a different notion of truth. The same applies to the method (or methods) that you use: describe your method and justify why this method, in your view, is the most fitting for answering your research question. It is also important that you define the basic concepts of your research as precisely as possible and that you show how your understanding of the concepts relate to other understandings in other relevant disciplines. Furthermore, you should clarify the aim or aims of your research: do you intent to carry out fundamental or applied research, or a combination of both? Finally, you should avoid becoming too much entangled in philosophical matters. Sometimes there are fundamental issues at stake on a theoretical level but in practice the consequences of one choice over the other are not always that fundamental. For instance, though realism and nominalism may differ fundamentally in their view on the translatability of concepts (both on a theoretical level and in concrete cases) both positions require that you clarify your basic concepts. Other times there seems to be a fundamental issue at stake, but at a second glance it appears that different disciplines are focusing on different aspects of the same phenomenon, so what they are claiming does not always have to be incompatible.

4. Limits and Possibilities of Interdisciplinary Research: Matters of Practice

After having discussed some matters of principle that may arise in multi- or interdisciplinary research, we now turn to matters of a more practical nature. We will focus on five practical issues that are most likely to arise, especially if you are not acquainted with this kind of research:

A. How to select the relevant discipline and how to justify your choice;
B. How to design an interdisciplinary research question that is interesting for all disciplines involved;
C. How to combine different methods;
D. How to find relevant materials;
E. How to interpret the materials from other disciplines.

We will discuss these practical matters briefly and give some general suggestions how best to deal with them.

A. SELECTING THE RELEVANT DISCIPLINE(S)

The first question that any aspiring interdisciplinary researcher has to answer is which discipline to choose. Although this is a potentially difficult choice, in practice there are many characteristics and constraints that will partly determine your choice for you. The first variable is the type of interdisciplinary research relevant to the research project. Most researchers, working within the field of law, only come to include interdisciplinary research once they have determined their topic. When designing their research question and plan they find that they need input from another discipline. So, if you plan to use another discipline as a supporting discipline, it usually follows from your research question which discipline is relevant. For instance, if you are interested in the way children's interests are taken into account in divorce proceedings, the question may arise in what way young children can be heard. Then the relevant discipline will be that of child psychology. By analysing your topic and by asking yourself which knowledge you need to answer your (legal) questions, the disciplines to be selected should present themselves to you.

The matter is more complicated with comparative or interdisciplinary research because here, the starting point is the comparison itself of two disciplines. On the surface, comparison makes sense: legal scholarship and theology both interpret authoritative texts and therefore there may be interesting parallels to discover by comparing them. As stated earlier, however, for a successful multidisciplinary or interdisciplinary effort, it is important that the researchers involved have a good working knowledge of both disciplines. This can be achieved by forming a team: working together with a researcher from another discipline, which requires necessitates a good working relationship with that colleague. However, generally a discipline is selected through the training of the researcher himself combining the study of two disciplines. The advantage of this criterion of choice is clear: the researcher knows both disciplines equally well. For someone versed in only one discipline it may be somewhat demoralizing: do you need two University degrees to do interdisciplinary work? If you are serious about a project, it is never too late to learn: why not take up a new discipline?

B. DESIGNING THE RESEARCH QUESTION

As with the previous topic, how to design the research question is dependent upon the type of research. Starting with auxiliary disciplines; here, it is vital that you, as a legal scholar, formulate precisely what you need from the other discipline. With a precise question, it is easier to interpret the materials you find in such a way that they actually provide an answer. One big problem of interdisciplinary research is that the kinds of questions asked in other disciplines are usually very different (see heading E) and need to be reinterpreted from a legal framework. Having a clear focus from the beginning is helpful. For instance, if you are interested in alternative dispute resolution in international business, you might formulate the following question. Is ADR a more efficient way to solve conflicts in international business relations than traditional court proceedings? You need to be precise about the concepts you use: what do you mean by solving conflicts? How do you define ADR? What counts as efficiency? However, although precision is important, you also need flexibility. This means that you should be able to rephrase your question in such a way that it becomes intelligible for another discipline. In this example, you may want to use economics as the auxiliary discipline, and you need to use economic definitions of efficiency in order to obtain answers. Once you have designed the question and read

some basic work in the other discipline, use that basic knowledge to turn your specific query for the auxiliary discipline into something for which you can find answers.

In the case of comparative and interdisciplinary research, designing the research question needs to be tackled from both disciplines at once (or alternating between them). The challenge is to find a question that is equally interesting from both perspectives in the sense that it will yield new insights for both disciplines. This means you have to test your question by confronting it with existing literature in both fields: does the question tackle a new issue? It is the potential strength of interdisciplinary research that it provides genuinely new questions and answers, but it is important to check whether this is really the case in both disciplines. Here, it is again particularly important to be clear about the meaning of concepts: do not assume too quickly that the question means the same thing in both fields.

C. COMBINING METHODS

Multi- and interdisciplinary research inevitably involve the use of different methods. For instance, if you want to add an empirical angle to your legal research, you cannot restrict yourself to a textual analysis of legal sources only. You have to start an investigation into reality, either by collecting empirical data yourself of by referring to the results of previous empirical research, carried out by other scholars. If you want to do the research yourself, you have to find, to begin with, the right method or methods to collect empirical data (you can, for instance, interview people or send out a questionnaire) and, subsequently, you have to apply this method or these methods in the right way. This requires an intensive training in the methodology of social sciences. If you are not willing or capable of doing the research yourself and therefore have to refer to empirical data collected by others instead, the problem is to find the right materials and to interpret them in the right way, which will be discussed below under the headings D and E respectively.

Either way, the question will arise how to combine the different methods and the different results they generate. Moving through the different stages of our dynamic model of interdisciplinarity – from a heuristic use of another discipline to a fully integrated interdisciplinary approach (as described in section 2) –, you will discover that this question becomes more and more urgent. If you simply seek inspiration from another discipline (for instance, literature studies), you have to translate your findings into legal terms and justify them according to the standards accepted in the science of law. A story like Von Kleist's 'Michael Kohlhaas' may inspire you to criticize the legal system, but you must give independent legal arguments in order to support your criticism. If another discipline is needed to provide information that is not available in the science of law, for instance information about the actual effects of legislation, you have to justify why this information is really necessary. Why do legal scholars have to know about the effects of law? Moreover, you should clarify how the extra-legal information is incorporated with the existing body of legal knowledge. How does it relate to other information already available in the science of law? For instance, how is law's effectiveness weighed against legal standards such as equality and fairness? The same applies to comparative research and, to an even greater extent, to perspectivist interdisciplinary research because here the exchange between disciplines is not incidental (to fill a specific gap in our knowledge) but structural (an object is studied systematically from different

perspectives): the combination of insights from different sources has to be justified. What do we gain as scholars of law from consulting economics or psychology, for instance? Finally, fully integrative interdisciplinary research requires an integration of methods: methods originally belonging to separate disciplines which are brought together in order to investigate an object. For instance, information science uses a variety of methods including mathematics, cognitive science and communication studies. To secure the unity of its object (in this case: information), an integrative approach requires an overarching method, or 'meta-method', which clarifies the relation between the different methods to be used and the way in which they can be brought together in answering the central research questions. If the integration of methods is successful and, on the basis thereof, a stable research program is established, the interdisciplinary approach turns into a discipline in its own right.

D. FINDING MATERIALS

It is very hard to find your way in a new discipline. Where should you start and what should you read? Of course, you could consult the library and get all the books and articles available on a particular topic in a particular field of research. Most likely, you will end up with an enormous pile of literature, not knowing which publications are relevant, so this is not very efficient. A better way to start is to consult experts who can give you suggestions for relevant publications to read and relevant courses to follow. For that purpose, it is very important that you make as clear as possible what it is that you are looking for; otherwise you will not get any suitable recommendations. If you are exploring totally foreign territory, it is best to start with some recent handbooks that give an overview of the discipline at hand – the topics it investigates, the different approaches which it consists of, the methods it uses and the results that have been achieved so far. After having read the following chapters, you probably will have a good picture of the different disciplines and their perspectives and methods. As soon as you have a general idea of what a discipline is about, you can move on to more specific publications which focus on the topic which you are particularly interested in. In these publications you will find references to further relevant literature. Another strategy is to follow introductory courses: you will get a quick overview of a discipline and, moreover, it will give you the opportunity to consult experts.

E. INTERPRETING MATERIALS

When you have found the relevant materials, you have to read and interpret them. That means that you have to process the information that is provided in the publications, assess it and apply it to your research question. Discovering a new discipline can be compared to learning a new language. In the beginning, you will have a hard time understanding what people speaking in a foreign tongue are actually talking about. Gradually, after much practice and exposure, you will make more sense of what you hear and, finally, you will be able to speak the language yourself. An important lesson that can be drawn from this comparison is that getting to know a new discipline takes a lot of time and effort, especially if you intend to make use of this discipline on more than an incidental basis (that is, if your research corresponds with type 3, 4 or 5 in our dynamic model of interdisciplinarity). You have to immerse yourself in the discussions that are taking place in the field at hand.

Another lesson to be learned is that, although it is said that 'practice makes perfect', you should be prepared to settle for less than perfect. Good enough is still good enough. If you are not raised bilingually, it is very difficult to master a second language fully. Moreover, keep in mind that you do not have to be an expert in another discipline yourself to draw some useful information from it for answering your research question.

In order to check whether you have understood what is said in another field, it advisable to ask for an expert opinion. An expert can tell you whether the way in which you have incorporated insights from his or her discipline in your research complies with the standards accepted there. However, a well-known problem with consulting experts is that they do not always agree with each other on minor as well as major issues. So how do you know which expert to choose and who can you trust? Since you cannot appeal to an 'expert of experts' (because then the same problem would occur: can he or she be trusted?), you have to rely on your own judgment. In general, it can be said that you should consult an expert who is generally accepted to be an authority on your research topic and whose approach broadly fits with your own ideas about how your research should be carried out.

5. Interdisciplinary Research: Choosing your approach

How do you choose between different kinds of research? Depending on the type of questions you want to answer and your own interests and capacities, you can decide either to stick to traditional monodisciplinary research, possibly with heuristical or more substantial input from another discipline, or to adopt a comparative or an interdisciplinary approach. Fundamental choices and beliefs in particular with respect to truth, the nature of concepts, the relation between facts and values, the aims of scientific research (see section 3) determine the place that interdisciplinarity can have. In our view, taking a particular approach to the nature of science is inevitable, a choice which entails the extent of interdisciplinary work that fits that particular perspective on scientific research. However, every approach has its possibilities and limitations. In our concluding remarks, we will discuss briefly the main advantages of different types of research, as described in our dynamic model of interdisciplinary (section 2) and the most important challenges or risks they face.

(i) To begin with, monodisciplinary research into law consists in the collection, analysis and systematization of legal norms promulgated by the legislature and applied by the courts, in many cases together with an assessment thereof on the basis of legal or other (e.g., political, ethical, or sociological) standards. Traditionally, it has always been the task of the science of law to describe the content of the law in the past as well as in the present. Since the law changes continuously, there will always be enough work for this kind of monodisciplinary research. Different actors in society can profit from the knowledge accumulated by the science of law: from politicians who want to contest the legality of some draft or bill in Parliament to citizens who aim at enforcing their rights before the court. According to Kelsen and other legal positivists, legal science should limit itself to a representation of the legal system as it is and to an assessment of its logical consistency, because otherwise it would loose its distinctive character and thereby its scientific *raison d'être*. In Kelsen's view, normative questions about what the law ought to be cannot be

answered scientifically, but belong to the political sphere. However, legal scholars who are working within a natural law or interactionist framework reject a strict is/ought distinction and, therefore, consider evaluation to be an integral part of legal science. A major advantage of a monodisciplinary approach that has been developed and refined over centuries is that a high level of harmonization in concepts and methods has been reached. Legal scholars have created a shared language to describe legal norms and hermeneutic tools to apply them to concrete cases. At the same time, when concepts and methods are largely stabilized, there is limited room for innovation. Innovation in the description and application of legal norms is not even considered to be an ideal to strive for within a traditional conception of legal science. Unlike the science of literature, legal science is not interested in producing the most creative or original interpretation of authoritative texts but in representing them in the most precise and accurate way. On the contrary, in order to protect the value of legal security, it is important that the legal system is presented as much as possible as a unified and univocal whole. A monodisciplinary approach to law, restricting itself to a representation and evaluation of the existing body of law on the basis of pre-established concepts and methods, *from a scientific point of view* may not seem very interesting or exciting – despite all its craftsmanship. Its main purpose is not to innovate scientific thought, but to apply existing knowledge on new data (such as new developments in society or in the legal system itself).

(ii) More room for innovation is created when a legal scholar turns to another discipline in order to get inspiration. In this case, the source discipline is used as a heuristic device for generating new insights from which the target domain – the legal science – may profit. These new insights will be evaluated according to values and truth criteria internal to the science of law. For instance, philosophical theory may indicate that interpretation of legal texts is never a matter of sheer subsumption but always is a creative process. In order to make this insight acceptable to legal science, it has to be justified in terms of its internal values, such as reasonableness or fairness. However, legal scholars who prioritize legal security over the fore-mentioned values will be inclined to reject this insight. Because external input is controlled by and mediated through internal standards, the heuristic approach has the same advantage as the monodisciplinary approach that it protects the unity of the concepts and methods used. An important weakness of the heuristic approach is, exactly because the external input has to be justified exclusively in internal terms, that the new insights are generated in a non-systematic, accidental and arbitrary way. Anything can be a source of inspiration to the science of law, not only other scientific disciplines but also novels, film or long strolls along the beach. From the viewpoint of legal science it does not make a difference where the insights are taken from or how they are discovered, as long as they can be justified in legal terms; they have no argumentative force on their own.

(iii) If a legal scholar treats the source discipline not merely as inspiration but as a necessary contribution to the science of law, the transfer of insights may acquire a more systematic and less arbitrary character. That is only possible if one considers the task of legal science to be more than just the representation of the legal system and an assessment of its internal consistency but also the development and improvement of the existing legal system. Otherwise, if legal scholars are seen solely as the bookkeepers of the law, there would be no need for external input. Suggestions for developing and improving the law may be taken from different

sources, for instance sociology or ethics. However, that raises the question why one source domain – in this case: sociology – is favoured. Moreover, the problem is how to assess the quality of the external input. One has to be trained in two disciplines to be able to take a stand in debates that take place within these disciplines. If not, one has to rely on authoritative sources which may unfortunately be contradictory. A final risk connected to the transfer of insights from one domain to the other is that the unity of concepts and methods used in the target domain is disturbed. For instance, what will happen when the economic distinction between efficient and inefficient is inserted into the legal vocabulary?

(iv) In comparative research all these risks are duplicated, because the transfer of insights is not one-way, as in the previous approach, but two-way: the disciplines involved are source and target domain at the same time. A scholar has to be at home in both disciplines, in order to assess the quality of the imported knowledge himself. The transplantation of foreign terminology into a scientific discourse may lead to misunderstandings (Luhmann (1991, 457). Moreover, problems may arise when disciplines produce contradictory insights. In other words, how can we secure coherence in knowledge claims in a comparative approach? At the same time, comparative research offers good opportunities of innovation in the target as well as in the source domain, if a fruitful interaction between the two can be established.

(v) Finally, an integrative approach offers the best opportunity for exchanging knowledge. Science is freed from artificial and arbitrary disciplinary boundaries. However, by transgressing boundaries, disciplines lose their distinct character and may become more and more identical. Moreover, in its effort to see everything from all sorts of perspectives at the same time, an integrative approach may end up in seeing nothing at all. Paradoxically, the more successful an integration of disciplines is, the more it resembles a monodisciplinary approach, with all its advantages and disadvantages.

Initially, we started from a dichotomy between an interdisciplinary or integrative approach to law and a monodisciplinary approach. By distinguishing different types of legal research in our dynamic model of interdisciplinarity, we create an opening to make this opposition less rigid. On the one hand, a monodisciplinary approach to law does not by necessity exclude the possibility that legal science profits from insights from other disciplines, if only in a heuristic way. On the other hand, an interdisciplinary approach that is successful in integrating knowledge from different sources may at some point become a discipline in its own right. With Arbib & Hesse (1986), we believe that a direct and ‘full’ access to reality is impossible. Our knowledge of the world is always mediated through some disciplinary perspective or other. Whether you want to adhere to one perspective or try to transcend this perspective by confronting it with other (sociological, ethical, historical, economical, rhetorical etc.) perspectives is a matter of personal choice – a choice that will depend on your convictions on fundamental philosophical issues.

At the two extremes of our model of interdisciplinarity, there are two pitfalls that in our view need to be avoided: at the one end, the rigidity and impermeability of a strict monodisciplinary approach and, at the other end, too much flexibility and openness that may result in an undifferentiated and undifferentiating fusion and confusion of perspectives. Between these extremes, meaningful exchanges between different disciplines are possible, as will be shown in the following chapters. However, these

exchanges will not always be peaceful, since different disciplines will use concepts and methods differently, or may at first not recognize each other's methods, and so on. From these clashes, new insights may spring.

Literature

Arbib, Michael A., & Mary B. Hesse (1986), *The Construction of Reality*. Cambridge: Cambridge University Press.

Balkin, J.M. (1996), 'Interdisciplinarity as Colonization', Washington and Lee Law Review 53, 949-970.

Butler, Judith (1999), *Gender Trouble. Feminism and the Subversion of Identity*, New York: Routledge.

Burg, W. van der (2009), 'Essentially Ambiguous Concepts and the Fuller-Hart-Dworkin Debate'. *Archiv für Rechts- und Sozialphilosophie*, 2009. Available at SSRN: http://ssrn.com/abstract=1009179.

Daniels, Norman (1996), 'Reflective Equilibrium and Archimedean Points', in: *Justice and Justification: Reflective Equilibrium in Theory and Practice*, Cambridge: Cambridge University Press, 47-65.

Davidson, Donald (1990), 'The Structure and Content of Truth' (The Dewey Lectures 1989), *Journal of Philosophy* 87: 279-328.

Dewey, John (1989), *Experience and Nature.* La Salle: Open Court.

Douven, Igor, & Leon Horsten (eds.) (1996), *Realism in the Sciences. Proceedings of the Ernin McMullin Symposium, Leuven 1995*, Leuven: Leuven University Press.

Dworkin, Ronald (1986), *Law's Empire*, London: Fontana Press.

Gadamer, Hans-Georg (1994), *Truth and Method,* Trans. Joel Weinsheimer and Donald G. Marshall, New York: Continuum.

Geertz, Clifford (1973), *The Interpretation of Cultures: Selected Essays*, New York: Basic Books.

Horkheimer, Max (1982), *Critical Theory*, New York: Seabury Press.

M.G. IJzermans & G.A.F.M. van Schaaijk (2007), *Oefening baart kunst*, Den Haag: Boom Juridische Uitgevers.

Kelsen, Hans (2003), 'Eine Grundlegung der Rechtssoziologie', in: Hans Kelsen & Eugen Ehrlich, *Rechtssoziologie und Rechtswissenschaft. Eine Kontroverse (1915/1917)*, Baden-Baden: Nomos Verlagsgesellschaft, 3-54.

Kelsen, Hans (1992), *Introduction to the Problems of Legal Theory. A Translation of the First Edition of the* Reine Rechtslehre *or Pure Theory of Law*, Oxford: Clarendon Press.

Kelsen, Hans & Eugen Ehrlich (2003), *Rechtssoziologie und Rechtswissenschaft. Eine Kontroverse (1915/1917)*, Baden-Baden: Nomos Verlagsgesellschaft

Klink, Bart van (2008), 'Facts and Norms. The Unfinished Debate between Eugen Ehrlich and Hans Kelsen', in: Marc Hertogh (ed.), *Living Law. Rediscovering Eugen Ehrlich*, Oxford: Hart Publishing, 239-282.

Legrand, Pierre (2003), 'The same and the different', in: Pierre Legrand and Roderick Munday, Comparative Legal Studies: Traditions and Transitions, Cambridge: Cambridge University Press, 240-311.

Luhmann, Niklas (1981), *Ausdifferenzierung des Rechts. Beiträge zur Rechtssoziologie und Rechtstheorie*, Frankfurt a.M.: Suhrkamp.

Luhmann, Niklas (1991), *Die Wissenschaft der Gesellschaft*, Frankfurt a.M.: Suhrkamp

Putnam, Hilary (1995), *Pragmatism. An Open Question*, Oxford: Blackwell

Putnam, Hilary (2002), *The Collapse of the Fact/Value Dichotomy and Other Essays,* Cambridge: Harvard University Press

Russell, Bertrand (1980), *The Problems of Philosophy*, Oxford: Oxford University Press

Saussure, Ferdinand de (1972), *Cours de linguistique générale*, Paris: Payot

Schuyt, Kees (2003), 'Jeugd, criminaliteit en geweld, naar een interdisciplinair programma van onderzoek', in: Kees Schuyt en Gabriël van den Brink, *Publiek geweld*, Amsterdam: Amsterdam University Press, p. 83-100.

Selznick, Philip (1992), *The Moral Commonwealth. Social Theory and the Promise of Community*, Berkeley: University of California Press

Siems, Matthias (2009), 'The Taxonomy of Interdisciplinary Legal Research: Finding the Way out of the Desert', *Journal of Commonwealth Law and Legal Education* 7, 5-17.

Vick, Douglas (2004), 'Interdisciplinarity and the Discipline of Law', *Journal of Law and Society* 31, 163–193

White, James Boyd (1990), *Justice as Translation: An Essay in Cultural and Legal Criticism*, Chicago: University of Chicago Press